



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/718,164	11/21/2000	Koji Hayashi	10449-027001	8739

26161 7590 03/10/2004

FISH & RICHARDSON PC
225 FRANKLIN ST
BOSTON, MA 02110

EXAMINER

LE, KIMLIEN T

ART UNIT	PAPER NUMBER
----------	--------------

2653

DATE MAILED: 03/10/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/718,164

Applicant(s)

HAYASHI, KOJI

Examiner

Kimlien T Le

Art Unit

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsukihashi (U.S. Patent 6,584,053)

Regarding claim 1, see Figs. 1 and 2 of Tsukihashi which show a data recorder for recording data on a recording medium by emitting a laser beam against the recording medium, the data recorder comprising: an interrupt control circuit (Fig. 1, element 18; See also column 5, lines 28-32) for interrupting data recording when a predetermined state is detected, wherein the interruption occurs when the laser beam is generated at a relatively low power level (column 7, lines 5-35).

Regarding claim 2, see Figs. 1 and 2 of Tsukihashi which show the data recorder according to claim 1, wherein the data includes synch pattern data (Fig. 1, element 20; See also column 4, lines 1-10), and the interrupt control circuit (Fig. 1, element 18; See

Art Unit: 2653

also Abstract) interrupts data recording when the laser beam is generated at the relatively low power level in accordance with the synch pattern data.

Regarding claim 3, see Figs. 1 and 2 of Tsukihashi which show a data recorder for recording data on a recording medium by emitting a laser beam against the recording medium, the data recorder comprising: a buffer memory (Fig. 1, element 12; See also column 3, lines 50-60), for temporarily storing data that is to be recorded on the recording medium; an interrupt control circuit (Fig. 1, element 18; See also Abstract) for interrupting data recording when a predetermined state is detected; an address memory (Fig. 1, element 15a; See also column 5, lines 55-60) connected to the buffer memory, wherein the address memory stores at least one of an address of the recording medium and an address of the buffer memory when data recording on the recording medium is interrupted, each address indicating a location of data when the recording interruption occurred; a synchronizing circuit (Fig. 1, element 20; See also column 4, lines 1-10) for sequentially reading the data recorded on the recording medium prior to the recording interruption and the data stored in the buffer memory prior to the recording interruption and synchronizing the recorded data and the stored data; and a restart circuit (Fig. 1, element 18; See also column 7, lines 20-35) for restarting data recording on the recording medium based on the address stored in the address memory, wherein the interrupt control circuit interrupts data recording when the laser beam is generated at a relatively low power level.

Regarding claim 4, see Figs. 1 and 2 of Tsukihashi which show the data recorder according to claim 3, wherein the data includes synch pattern data (Fig. 1, element 20; See also column 4, lines 55-60), and the interrupt control circuit circuit (Fig. 1, element

Art Unit: 2653

18; See also column 7, lines 12-35) interrupts data recording when the laser beam is generated at the relatively low power level in accordance with the synch pattern data.

Regarding claim 5, see Figs. 1 and 2 of Tsukihashi which show the data recorder according to claim 4, wherein the data is recorded in the recording medium in sector units, each sector including sector address data, and wherein the address memory (column 5, lines 38-60) stores the sector address data where the recording interruption occurred.

Regarding claim 6, see Figs. 1 and 2 of Tsukihashi which show the data recorder according to claim 5, wherein the predetermined state is a state in which there is a possibility that the amount of data in the buffer memory may become null and cause the buffer memory to become empty (Fig. 1, element 12; See also column 5, lines 24-30).

Regarding claim 7, see Figs. 1 and 2 of Tsukihashi which show a data recorder for recording data on a recording medium by emitting a laser beam against the recording medium, wherein the data is formed by a plurality of sectors, each of the sectors including a synch pattern that has a predetermined number of bits representing a low level, wherein the laser beam is generated at a low power level in accordance with the low level of the synch pattern, the data recorder comprising: an interrupt control circuit (Fig. 1, element 18; See also column 7, lines 12-35) for continuing recording until an interval between sectors appears when detecting a predetermined state and interrupting the recording operation when the laser beam is generated in accordance with the synch pattern of a sector.

Regarding claim 8, see Figs. 1 and 2 of Tsukihashi which show a data recorder for recording data on a recording medium, the recorder comprising: a buffer memory

Art Unit: 2653

(Fig. 1, element 12; See also column 3, lines 50-60) for temporarily storing data; an encoder (Fig. 1, element 11; See also column 3, lines 28-42) connected to the buffer memory to encode the data read from the buffer memory and to generate recording data; a recording unit (Fig. 1, element 14; See also column 3, lines 45-50) connected to the encoder to emit a laser beam against the recording medium in accordance with the recording data and record the recording data on the recording medium; and an interrupt control circuit (Fig. 1, element 18; See also column 7, lines 12-35) connected to the encoder to detect a predetermined state during data recording, wherein, upon the detection of the predetermined state, the interrupt control circuit controls the encoder so that data recording is interrupted when the laser beam is generated at a relatively low power level.

Regarding claim 9, see Figs. 1 and 2 of Tsukihashi which show the data recorder according to claim 8, wherein the data includes synch pattern data (column 4, lines 5-10), and the interrupt control circuit (Fig. 1, element 18; See also column 7, lines 12-35) interrupts data recording when the laser beam is generated in accordance with the synch pattern data.

Regarding claim 10, see Figs. 1 and 2 of Tsukihashi which show the data recorder according to claim 9, wherein the predetermined state is a state in which there is a possibility that the amount of data in the buffer memory may become null and cause the buffer memory to become empty(column 5, lines 24-30).

Regarding claim 11, see Figs. 1 and 2 of Tsukihashi which show a method for recording data on a recording medium method comprising: continuing recording until an interval between sectors appears when a predetermined state is detected (column 6, lines

Art Unit: 2653

65-68); and interrupting the recording operation when the laser beam is generated in accordance with the synch pattern of a sector (column 7, lines 25-35).

Regarding claim 12, see Figs. 1 and 2 of Tsukihashi which show a method for recording data on a recording medium by emitting a laser beam against the recording medium, the method comprising: temporarily storing data in a buffer memory (Fig. 1, element 12; See also column 3, lines 50-60); recording data read from the buffer memory on the recording medium; interrupting data recording when a predetermined state is detected (column 6, lines 65-68); storing in an address memory (Fig. 1, element 15a; See also column 5, lines 55-60) at least one of an address of the recording medium and an address of the buffer memory when data recording on the recording medium is interrupted, each address indicating a location of data when the recording interruption occurred; sequentially reading the data recorded on the recording medium prior to the recording interruption and the data stored in the buffer memory prior to the recording interruption (column 6, lines 15-25); synchronizing the recorded data and the stored data (column 6, lines 15-25); and restarting data recording on the recording medium based on the address stored in the address memory, wherein the interrupting of the data recording is performed when the laser beam is generated at a relatively low power level (column 6, lines 20-25).

Cited References

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited references are all related to a data recorder.

Points of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimlien T Le whose telephone number is 703 305 3498. The examiner can normally be reached on M-F 8a.m-5p.m

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on 703 305 6137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kimlien Le
March 3, 2004


TAN DINH
PRIMARY EXAMINER